Water Strategy Framework for Implementation

Priority Area: Achieve a 40% phosphorous reduction in western Lake Erie basin

The Michigan Water Strategy includes a recommendation to achieve a 40% phosphorus reduction in the western Lake Erie basin. To achieve this target, a 40% reduction in total phosphorus annual loading from sources in the western and central basin as a whole is needed, and 40% reductions in total and dissolved reactive phosphorus is also needed during spring loads in specific watersheds tributary to the WLEB. The Michigan Department of Environmental Quality and Michigan Department of Agriculture and Rural Development are working collaboratively with the U.S. Environmental Protection Agency and other stakeholder groups to define actions needed to achieve the 40% reduction goal in WLEB. To address these issues, the U.S. and Canadian state, provincial and federal governments have come together in two very important ways. In June 2015, Michigan Governor Rick Snyder signed the Western Basin of Lake Erie Collaborative Agreement (Collaborative Agreement) with Premier of Ontario Kathleen Wynn and Ohio Lieutenant Governor Mary Taylor, that establishes a regional collaborative initiative that has a defined goal and timeline, requires specific implementation plans, and is measured against expected results.

Under Annex 4 of the GLWQA, the U.S. and Canadian governments have committed to developing draft Domestic Action Plans by 2016. The MDEQ and MDARD will work with the U.S. EPA to draft a Domestic Action Plan by December 2016 that will further define specific implementation goals outlined in the Collaborative Agreement Implementation Plan, a timeline to achieve reduction targets that is consistent with the Collaborative Agreement, evaluation and tracking methods, and a stakeholder involvement process that meets Annex 4 GLWQA commitments. The MDEQ and MDARD will work with partner agencies and organizations in the U.S. and Canada to establish monitoring, assessment and progress tracking protocols to ensure actions are effectively moving toward the 40% phosphorus reduction goal.

MAJOR INITIATIVES

- The MDEQ will continue to work closely with Great Lakes Water Authority (GLWA) to track and maintain phosphorus reductions at the GLWA Detroit Wastewater Treatment Plant through monthly meetings, prompt review of discharge levels, and MDEQ staff presence at the WWTP.
- The MDEQ will reissue the existing NPDES permit in 2016 to include phosphorous limits consistent with the limits in the GLWA Detroit WWTP permit to achieve phosphorus reductions at the Wayne County – Downriver WWTP.
- The MDEQ will develop a specific plan to include appropriate monitoring, an analysis of target reductions for each subwatershed, and actions that will be implemented to achieve the target phosphorus reductions in Michigan's part of the Maumee River watershed.
- The MDEQ and MDARD will participate in research-oriented collaborative efforts and seek funding for research and demonstration opportunities to further address and understand Harmful Algal Blooms (HABs) and their response to physical and chemical stimuli and understand the difference in the movements of total and dissolved phosphorous in and through the system.
- Building on monitoring initiated in 2015, the MDEQ is implementing a plan to increase understanding of HABs and algal toxins statewide, which will directly benefit the WLEB efforts.
- The MDEQ is evaluating specific monitored phosphorus reductions achieved thus far in the Raisin River watershed to understand which actions contributed to reductions.
- MDARD will maintain and expand partnerships and current conservation district technical assistance levels through 2017 and beyond to assure the ongoing expanded levels of 8

local MAEAP technicians in the WLEB and will strengthen partnerships with the agricultural community (including farming input providers and Certified Crop Advisors [CCAs]).

- MDARD will maintain existing and increase new MAEAP verifications for long-term practice implementation including continuing piloting incentives for farmers and CCAs that began in 2015 in WLEB. MAEAP technicians have annual goals of 35,000 additional cropland acres managed under nutrient management plans and 77 additional MAEAP verifications.
- MDARD will seek to understand and demonstrate innovative BMPs and monitoring strategies for distributed sources of sediment and nutrient loading.
- In FY 2017, MDARD will roll out a new MAEAP reporting and planning database that will protect confidential farm information yet provide summaries of on-farm risk assessments, conservation practice implementation, and MAEAP verification. Environmental and conservation practice information will also be used to estimate sediment and nutrient loading reductions. MDARD will continue to seek new data and information about BMPs and monitoring strategies through ongoing communications with research universities and federal agencies such as the USGS, ACE, and USDA ARS.
- MDARD will improve and increase outreach to the public and farmers to promote understanding of the Basin and good conservation practices by initiating new targeted outreach campaigns.

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